

What is claimed is:

1. A scanning electron microscope with a measurement function, wherein:

plural measurement items including plural measurement calculation methods for an edge detected by an edge detection are specified in an auto measurement parameter (AMP) configuration window;

a line profile is created from an SEM image;

an edge is detected from the line profile as specified; and

measurements are calculated successively from the detected edge according to specified plural measurement calculation methods.

2. A scanning electron microscope with a measurement function, wherein:

plural measurement items including plural measurement calculation methods for an edge detected by an edge detection are specified in an auto measurement parameter configuration window;

a line profile is created from an SEM image;

an edge is detected from the line profile as specified; and successive calculations of measurements from the detected edge are repeated for the specified measurement items; and

measurement values calculated for measurement items including plural measurement calculation methods for an edge detection method are displayed in a display window.

3. A scanning electron microscope with a measurement function, wherein:

plural measurement items including plural measurement calculation methods for an edge detected by an edge detection are specified in an auto measurement parameter configuration window;  
a line profile is created from an SEM image;  
an edge is detected from the line profile as specified;  
for the specified measurement items, measurements are calculated from the detected edge;  
after plural measurements are calculated for each edge detection method, edge detection from the line profile is done for a next edge detection method;  
plural measurements are calculated from an edge detected for another measurement item; and  
measurement values calculated for plural measurement items are displayed in a display window.

4. The scanning electron microscope with a measurement function as claimed in Claim 1, wherein a measurement calculation method includes such items as width, width roughness and edge roughness.

5. The scanning electron microscope with a measurement function as claimed in Claim 1, wherein the auto measurement parameter configuration window mainly consists of three window areas: a first window area where plural measurement items are specified; a second window area where a measurement method is specified and common auto measurement parameters for all measurements are specified; and a third window area where measurement items are displayed and revised.

6. The scanning electron microscope with a measurement function as claimed in Claim 5, wherein a measurement item is selected from another window having an area for displaying plural measurement items, and the selected item is entered in the auto measurement parameter configuration window.

7. A scanning electron microscope with a measurement function, wherein:

plural measurement items including plural measurement calculation methods for an edge detected by an edge detection are specified in an auto measurement parameter configuration window;

a line profile is created from an SEM image;

an edge is detected as specified from the line profile; and

for the specified measurement items, measurements are calculated from the detected edge.